



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0553; Product Identifier 2016-NM-208-AD; Amendment 39-19250; AD 2018-07-19]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 787-8 and 787-9 airplanes. This AD was prompted by a report that the parking brake and alternate pitch trim module (PBM) may unintentionally disengage. This AD requires replacing the PBM and doing a PBM installation test. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone: 562-797-1717; Internet: <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call

206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0553.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0553; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Sean Schauer, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3547; email: [Sean.Schauer@faa.gov](mailto:Sean.Schauer@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 787-8 and 787-9 airplanes. The NPRM published in the Federal Register on June 12, 2017 (82 FR 26872). The NPRM was prompted by a report that the PBM may unintentionally disengage, fail to set, fail to release, or become jammed. The NPRM proposed to require replacing the PBM and doing a PBM installation test.

We are issuing this AD to prevent an unintended parking brake release, which could result in damage to the airplane and be a hazard to persons or property on the ground.

## **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment. United Airlines supported the NPRM.

### **Request to Revise the Unsafe Condition**

Boeing requested that information not related to the unsafe condition be removed. Boeing stated that the AD should specifically address the unintended release of the parking brake module. Boeing also stated that the additional information describes a reliability improvement that is not related to the unsafe condition of unintended parking brake release.

We agree with the commenter's request to revise the description of the unsafe condition accordingly, for the reasons provided.

### **Request to Revise the Applicability**

All Nippon Airways (ANA) requested that no action be required for airplanes with an original certificate of airworthiness or original export certificate of airworthiness issued after the effective date of the AD. ANA commented that the applicability in the proposed AD would apply to all The Boeing Company Model 787-8 and 787-9 airplanes. ANA stated that paragraph (g) of the proposed AD is only for airplanes on which the original certificate of airworthiness or the original export certificate of airworthiness was issued on or before the effective date of the AD. ANA also stated that the action that would be required for airplanes on which the original certificate of airworthiness or the original export certificate of airworthiness will be issued after the effective date of this AD is uncertain.

ANA stated that it has already prohibited installation of PBM part number (P/N) 4260-0037-3 and -4 on any airplane. ANA also stated that PBM P/N 4260-0037-5 is installed on the airplanes on which the original certificate of airworthiness or the original

export certificate of airworthiness will be issued after the effective date of this AD. ANA commented that therefore, it believes that no action is necessary for airplanes on which the original certificate of airworthiness or the original export certificate of airworthiness will be issued after the effective date of this AD if installation of PBM P/N 4260-0037-3 and -4 is already prohibited before the effective date of this AD.

We disagree with the commenter's request. We have determined that the affected parts are rotatable parts such that these parts could later be installed on airplanes that were initially delivered with acceptable parts, thereby subjecting those airplanes to the unsafe condition. Therefore, all The Boeing Company Model 787-8 and 787-9 airplanes are subject to the requirements in paragraph (h) of this AD. We do concur with the commenter that paragraph (g) of this AD only applies to an airplane with a certificate of airworthiness or an original export certificate of airworthiness issued on or before the effective date of this AD. We have not revised the AD in this regard.

#### **Request to Revise the Compliance Time**

The Air Line Pilots Association, International (ALPA) requested that the compliance time in the proposed AD be revised. ALPA stated that the compliance time of 60 months has been provided for both inspection and replacement of the affected parts. ALPA commented that the 60 months for inspection and corrective action is excessive. ALPA also stated that due to the unobtrusive nature of the inspection for the affected parts, the compliance time for the inspection should be re-evaluated and reduced to less than that of the compliance time for the corrective action.

We disagree with the commenter's request. The compliance time in this AD is based on FAA analysis of safety risk factors including consideration of the rulemaking time, as well as the time required to rework each PBM to the part number 4260-0037-5 configuration. We have not revised this AD in this regard.

### **Request to Revise “In Accordance With” Language in the Service Information**

American Airlines (AAL) requested that the “in accordance with” language in Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016, be revised. AAL stated that where the service information proposes accomplishing the actions “in accordance with” the airplane maintenance manual (AMM), “refer to” should be used instead so that compliance with paragraph (g)(2) of the proposed AD can be properly attained. AAL also stated that paragraph (g)(1) of the proposed AD does not require verification that the PBM was installed and the installation tested “in accordance with” 787 AMM 32-44-01.

We agree with the commenter. We agree that the wording in Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016, should specify “refer to” instead of “in accordance with” because it allows operators additional flexibility. For clarification, we have revised paragraph (g)(2) of this AD to state: Where Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016, specifies accomplishing an action “in accordance with 787 AMM 32-44-01,” for this AD “refer to 787 AMM 32-44-01” for that action. Because the corrective action is specified in the AMM and the AMM is no longer required by “in accordance with” text, we have removed the references to “applicable corrective actions” from the first two sentences of paragraph (g)(2) of this AD and added a new corrective action statement in paragraph (g)(2) of this AD.

### **Request to Delete or Modify a Contradictory Sentence**

ANA requested that we delete or modify a contradictory sentence in the proposed AD. ANA stated that according to paragraph (g) of the proposed AD, if the PBM is Rockwell Collins P/N 4260-0037-3 or -4, ANA has to install PBM P/N 4260-0037-5 within 60 months after the effective date of this AD, and in the last sentence of the paragraph, it says to do all applicable corrective actions “before further flight.” ANA

stated that the two sentences are contradictory and that it is too hard to do all applicable corrective actions before further flight. ANA also commented that installing PBM P/N 4260-0037-5 “within 60 months” is acceptable.

We agree to clarify the compliance time language. Paragraph (g)(2) of this AD requires installing the PBM, doing the installation test, and doing applicable corrective actions. Operators have the entire compliance time of “within 60 months after the effective date of this AD” to accomplish the PBM installation and the installation test. However, if the test fails, all applicable corrective actions must be done before further flight after the test. As stated previously, we have revised the corrective action statement in paragraph (g)(2) of this AD to clarify the requirements.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

### **Related Service Information under 1 CFR part 51**

We reviewed Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016. The service information describes procedures for replacing the PBM and doing a PBM installation test. This service information is reasonably available

because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 68 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	1 work-hour X \$85 per hour = \$85	\$0	Up to \$85	Up to \$5,780
PBM replacement and test	4 work-hours X \$85 per hour = \$340	\$9,655	\$9,995	\$679,660

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In

accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.



### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2018-07-19 The Boeing Company:** Amendment 39-19250; Docket No. FAA-2017-0553; Product Identifier 2016-NM-208-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to all The Boeing Company Model 787-8 and 787-9 airplanes, certificated in any category.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 32; Landing gear.

#### **(e) Unsafe Condition**

This AD was prompted by a report that the parking brake and alternate pitch trim module (PBM) may unintentionally disengage. We are issuing this AD to prevent an unintended parking brake release, which could result in damage to the airplane and be a hazard to persons or property on the ground.

#### **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

#### **(g) Inspection and Replacement**

For airplanes on which the original airworthiness certificate or the original export certificate of airworthiness was issued on or before the effective date of this AD: Within 60 months after the effective date of this AD, inspect the PBM to determine the part

number. A review of airplane maintenance or delivery records is acceptable in lieu of the inspection if the part number of the PBM can be conclusively determined from that review.

(1) If the PBM is Rockwell Collins part number (P/N) 4260-0037-5: No further action is required by this paragraph.

(2) If the PBM is Rockwell Collins P/N 4260-0037-3 or -4: Within 60 months after the effective date of this AD, install PBM P/N 4260-0037-5 and do the PBM installation test, in accordance with the Accomplishment Instructions of Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016. Where Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016, specifies accomplishing an action “in accordance with 787 AMM 32-44-01,” for this AD “refer to 787 AMM 32-44-01” for that action. If the installation test fails, before further flight, do all applicable corrective actions and repeat the test until the test is passed.

**(h) Parts Installation Prohibition**

As of the effective date of this AD, no person may install, on any airplane, a PBM having Rockwell Collins P/N 4260-0037-3 or -4.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (i)(4)(i) and (i)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

**(j) Related Information**

For more information about this AD, contact Sean Schauer, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3547; email: Sean.Schauer@faa.gov.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Service Bulletin B787-81205-SB320028-00, Issue 001, dated October 31, 2016.

(ii) Reserved.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone: 562-797-1717; Internet: <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on March 30, 2018.

Chris Spangenberg,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2018-07629 Filed: 4/13/2018 8:45 am; Publication Date: 4/16/2018]